

R30XM₂ ORDER PICKER PRODUCT FABs

What are FAB statements

The core activity in selling is the identification of customer problems and the presentation of materials handling solutions in a helpful way. To present the proposed solution to a customer, a salesperson will utilize the FAB approach. This approach helps the salesperson organize and present extensive, complex product information clearly and concisely. It entails discussion of FAB statements such as features, advantages, and benefits of the product presented.

FAB Definitions

- **Feature:** What it is (Tangible Aspects)
- **Advantage:** How it works (Performance Characteristics)
- **Benefit:** What it does for the Customer (Product Payoffs)

FAB statements define the specific product attributes or features and describe how they will meet the customer's specific materials handling needs. It is important to note that these statements can be presented in such a way to link most features to specific benefits.

FAB Example

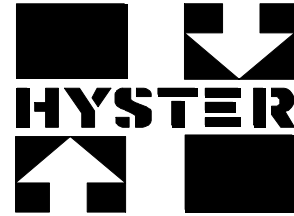
As an example, one of your customers states that his company's issues are, "truck down time and serviceability. Our business has picked up, we can not afford truck downtime and lengthy service repairs."

Given the customer's issues, you will want to provide a sales proposal that addresses ways your product will reduce truck down time and enhance serviceability. The proposal should be based upon the FAB approach. The statements chosen must relate how the R30XM₂ order picker, for example, will reduce truck downtime and enhance serviceability.

FAB Solution example:

- **Feature:** "Mr. Customer, our Hyster R30XM₂ features a state-of-the-art CANbus communication system"
- **Advantage:** "Allows the trucks multiple control systems to be linked together and function as one system"
- **Benefit:** "This design reduces the number of over the mast cabling required to interface between the platform and the chassis, from 27 conductors (on previous model) to 8 conductors. This feature increases reliability, provides a substantial reduction in wiring connections and complexity, and allows access to all controller parameters through a single CANbus port. The overall payoff is reduced truck downtime and enhanced serviceability."

FAB statements are very effective if they are used properly. Once you have presented a FAB statement, you then need to solicit feedback from the customer. Open-ended questions, such as "What do you think?" or "How does this proposal sound?" will give you an indication of the customer's acceptance level with your proposal. And, ultimately, this questioning will lead to buying signals. In the upcoming pages, FAB statements are provided for six different benefits. Select or tailor the statements provided to meet the needs of your customer.



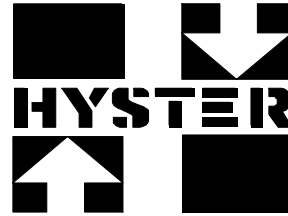
R30XM₂ KEY PRODUCT ATTRIBUTES

BENEFIT: INCREASED PRODUCTIVITY	
FEATURE	ADVANTAGE
3,000 lbs. lifting capacity	The R30XM ₂ order picker is capable of handling warehouse loads up to 3000 lbs. efficiently.
Self-adjusting pallet clamp	Rigid pallet clamp automatically centers and grips the pallet's center stringer for a firm hold, automatically activated - manually released. Eliminates the need to manually / physically activate pallet clamp jaws to accept a pallet, a common task on competitive models. To release the pallet clamp jaws, simply depress the ergonomically positioned foot pedal on the operator compartment floor.
Multi-function accelerator control handle	Provides simultaneous command of lift/lower, travel direction, speed and horn all at the operator's finger tips. Handle actuation requires very low effort levels and provides smooth motion of hydraulic and traction functions. Handle function is intuitive and logical for ease of operation and great load handling efficiency.
Tapered service compartment hood	Improves forward visibility by making it easier to see any obstacles in your picking path.
Standard 24 volt power	Offers sufficient battery power suitable for most basic warehousing applications.
Optional 36 volt power	Provides faster lift/lower, travel speeds, and rate of acceleration needed for high cycle, high throughput operations.

BENEFIT: INCREASED PRODUCTIVITY	
FEATURE	ADVANTAGE
Curtis SEPEX[®] (Separately Excited Motor) transistor controller	State-of-the-art technology enhances tractive performance. Allows SEM motors to sense the load conditions and respond proportionally by providing more torque for heavier loads and more speed for lighter ones. By design, SEM motors allow ideal performance for productivity. They provide higher RPMs and greater torque compared to series wound motors.
Multi-turn steering control (Optional)	Enables you to steer the truck with a spinner knob and visually check steer angle with the LED direction indicator. An audible alarm sounds if truck is oversteered. Feature allows for steering control uniformity in a competitive, mixed fleet.
Return To Center (RTC) steering	Eliminates need to turn a wheel lock-to-lock and rely on visual steer direction indicator. RTC steering lets you turn the orderpicker by rotating the handle one-quarter of a circle. The 90 degree maximum rotation provides an advantage over the full disc steering systems by minimizing the arm and shoulder movement, resulting in lower muscle effort levels. The control and drive tire will return to center automatically when the handle is released. Truck travels in a straight line minimizing the need for constant correction in the aisle. Enables easier tracking and maneuvering especially in rail guided applications.
Storage amenities	Console features built-in storage areas to keep clipboards, pick lists, RF scanners, writing utensils, beverage can, rolls of tape and the like conveniently close-at-hand. It even has a removable trash bin to help keep the workstation clutter-free and efficient.
Pin type forks	Solid-steel forks are pin-mounted and adjustable to fit a variety of pallet sizes. They are available in optional lengths. Forks can be adjusted by simply pushing up on fork tip and sliding it up to one-inch on either side of the shaft centerline. This ease of adjustment is an advantage over fixed mounted forks which require hardware removal and manual release.
HySense[™] continuous height sensing	A pick cycle time saver. Standard feature provides step-less travel speed control as the load is lifted. It optimizes maximum travel speed at various fork heights compared to conventional stepped speed traction systems.

BENEFIT: INCREASED PRODUCTIVITY	
FEATURE	ADVANTAGE
Centering proximity switch	Allows the drive tire to be perfectly centered at every power start-up for straight tracking. This feature is a time saver because it eliminates the operator from having to verify steer tire angle, and automatically permits straight ahead travel at start up.
Optional freezer package	Special package available so orderpicker can work continuously in frigid temperatures to -20° Fahrenheit. Package includes: low temperature oil, double sealed load wheel bearings, moisture resistant grease on all electrical connections, heated traction controller and dash display, heaters on steering and height encoder, Hall-Effect sensor heater, heated (MCU) Master Control Unit, cover over contactor panel, enclosed bands on traction and hoist motors, vents covered on frame, poly siped drive tire, load wheels have plated axle shafts.
Optional high-level traction	A productivity improvement option that provides traction so you can access products stored above 212-inches while in the aisle. Note: Capacity reduction required. Contact Application Engineering department for capacity ratings.
Optional mast lift limit	Reinforces operator confidence to work in aisle without worrying about truck interference with overhead obstructions such as sprinkler systems and lights in warehouse. Option allows truck to be programmed to stop at specified height to prevent overhead guard from interfering with lowest obstruction in picking area. Option is fully programmable in field to any height.
Optional mast lift limit override	An operating confidence booster. Option allows maximum fork height to be programmed to height of lowest overhead obstruction. A push button is provided which allows operator to override lift limit and extend mast to higher heights, if needed.
Optional mast lower override	Allows you to program the mast so it lowers to a specific fork height. This option improves operator productivity since it takes the guesswork out of placing the forks at the right height to lower picking carts or baskets onto the warehouse floor. A push button is provided which allows the operator to lower the forks beyond the pre-set limit.

BENEFIT: INCREASED PRODUCTIVITY	
FEATURE	ADVANTAGE
Vista 3 stage	Lift cylinders are mounted behind mast channels to provide a large, window view ahead so cycle times are faster and easier. Elimination of free lift cylinder provides excellent visibility and gets rid of "bump" during mast cycling transition.
Safety glass wind shield (optional)	Provides a clear unobstructed view of aisle ahead for easy maneuvering.
Variable speed lift / lower	Ability to vary lift and lower speeds based on operator's preference.
Optional base arm guide rollers	The addition of guide rollers on the base arm and truck chassis provide the ability for an orderpicker to travel down rail-guided picking aisles. Rail guidance systems are typically utilized in operations with small fleets. This system is also advantageous if the warehouse floor has poor surfaces.
Optional wire guidance	Provides method of steering the orderpicker down an aisle in a controlled manner without mechanical guides on it. Able to acquire wire at a 30° angle. Option is compatible with various wire systems. Wire guided orderpickers are able to enter/exit an aisle more smoothly and access floor level loads compared to rail guided ones. Wire guidance systems are typically utilized in large fleet warehouse operations.



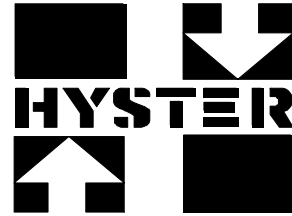
R30XM₂ KEY PRODUCT ATTRIBUTES

BENEFIT: INCREASED OPERATOR COMFORT	
FEATURE	ADVANTAGE
Spacious operator platform	Large-sized (27.5" D x 40" W), clutter-free platform provides plenty of room for the operator to move within the workstation.
Optional platform widths	Option extends the working room on the platform as much as 10-inches on each side. Platform widths available in 48" 54" and 60".
Anti-fatigue platform floormat	Platform is lined with a one-inch thick, shock absorbing padding for full-shift comfort. The floormat also cushions the operator's feet, yet provides the right amount of firmness for sure footing at high elevations.
Optional 48" base width	Option provides a wider truck footprint for improved stability at high lift heights.
Standard swing-up side rails	Offers complete side protection for sure handling at all work heights. Gas spring-assisted side gates lift effortlessly and independently so operator can work off either side of the platform easily.
Electric interlock switches (standard equipment)	Electric interlock switches disable the traction and hoist functions when sidegates are fully raised. The truck will not travel in either direction nor will the truck lift or lower until side gates are fully lowered. This features allows the operator to concentrate solely on picking items without worrying about inadvertent truck operation.

BENEFIT: INCREASED OPERATOR COMFORT	
FEATURE	ADVANTAGE
Optional fixed hoop side rails	A lower cost alternative as a price deduct option to the standard retractable side gates. Steel hoop rails offer permanent side protection and can be utilized as a steady rest. Rails are welded in a fixed position to the platform upright which eliminates the need for traction cutout compared to retractable side gates.
Flush mounted brake switch	Location of foot switch enables a natural, comfortable operating stance. The foot switch is countersunk in padding so it's flush with the floormat, further enhancing operator comfort.
Ergonomically located controls	All controls, instrumentation, and foot switch are positioned to promote an easy interactive relationship between the orderpicker and the operator.
Concave console	Concaved mid-section of console provides comfortable back support when driving in fork-first direction.
Optional height-adjustable console	Exclusive feature offers an ergonomic advantage since it lets the operator vertically adjust the console up to six-inches so the steering and traction controls are at the most comfortable grasp height.
Optional upper body ventilation	Exclusive two-speed fan is switch operated and located in console. The position of fan directs air towards the operator's upper body to keep him/her cool and refreshed, especially in warm environments.
Standard 2 fixed worklights, dome light, and 2-speed fan	Overhead work and dome lights help illuminate operator workspace to increase visibility in a dimly lit warehouse. Each light bank contains a two-speed fan which has adjustable louvers to redirect airflow for efficient cooling.
Optional 2 adjustable spotlights, 2 fixed lights, dome light , and 2-speed fan	An optional light and fan package is available as a standard price book option. The optional light and fan package contains all the features of the standard light and fan package with the addition of 2 adjustable work lights/spot lights. The adjustable work lights enables the operator to brighten dark aisleways and load pick faces/bins for more efficient order picking.

BENEFIT: INCREASED OPERATOR COMFORT	
FEATURE	ADVANTAGE
Backlit dash display	Backlit display makes it easy to read vital truck information especially in dimly lit warehouses.
Soft touch covering on steering controls	Return-to-Center steer handle casting is covered with a soft touch, plastisol material which has 65A durometer (hardness rating) coating. Plus, the surface is texturized for a sure, yet comfortable grip. Multi-turn steering knob and disk are covered with a urethane foam material for comfort. It has a pebble-texture finish for an anti-slip grip.
Ergonomic multi-function accelerator control handle	The accelerator handle is mounted at a 45° angle to match the operator's natural forearm posture for a comfortable grip. It is an effective, ergonomic alternative compared to competitors' wrist-fatiguing rotary designs. The accelerator handle is shaped so the operator's hand naturally grasps the pistol grip and trigger-style horn for easy, comfortable actuation. The handle base has a built-in palm rest for supportive comfort. Variable speed lift and lower functions are actuated by a thumb knob atop handle. Handle throw is minimal, so acceleration is highly responsive.
Adjustable multi-function accelerator control handle	Multi-function accelerator handle conforms to operator's driving style. A unique 3-position detent provides rotational adjustment up to 60° so the operator's wrist is in the most comfortable position. The handle is also spring-loaded, so it returns to neutral when released.
Auto Deceleration System (ADS)	Auto deceleration is a benefit of SEM. When the foot switch is released the truck will gradually decelerate to approximately 1 mph before the parking brake will engage, bringing an end to abrupt stops. In addition, when accelerator handle is returned to the neutral position, the truck will gradually decelerate until the truck comes to a smooth controlled stop.
Adjustable plugging	Plugging is the preferred way to stop an electric orderpicker. Depending on the application, the plugging aggressiveness may need to be modified/altered. With the control handle in the set-up mode, the technician can adjust the plugging aggressiveness to the operator's preference or application needs.

BENEFIT: INCREASED OPERATOR COMFORT	
FEATURE	ADVANTAGE
On-demand electric power steering system	Steering system is fully electric steering which eases operation and helps reduce operator fatigue.
Return-to-Center steer handle	Offers three-position steering comfort for driving in either direction -- chassis or fork-first. Handle is designed so operator can grab the center or top of the steer handle for driving comfort in the chassis-first direction. Or, grab the bottom of the handle for driving comfort in fork-first direction.
Tapered console	Forearm recess in top of the console affords your operators a more natural alignment of hand, wrist, and arm when traveling in the forks-first direction.
Wire mesh screen	Larger-sized grid pattern in center section of mast screen promotes ventilation and a better view through mast channels. Smaller size grid pattern on outside edges of mast channels help filter debris away from operator.
Lowering cushion	Hydraulic cushioning in each lift cylinder allows the operator platform to slowly lower the last 8-12" inches of travel for a smooth, controlled stop.
Accumulator	One of the major factors affecting operator comfort is the smoothness of platform transitions when traveling up and down. Bladder-type accumulator (standard equipment) provides the hydraulic cushioning necessary for smooth moves, minimizing stress on the operator's knees and lower back. It is installed in the lift circuit and mounted on the manifold block.
Variable speed	Allows operator to feather the lift and lower speeds which eliminates abrupt platform transitions.
Mast staging	Triplex mast channels are able to smoothly extend to maximum fork height at a constant lift speed due to no free-lift cylinder staging.
Tandem articulating load wheels	Articulation allows the load to be shared equally over the tandem load wheels, providing a smoother ride.



R30XM₂ KEY PRODUCT ATTRIBUTES

BENEFIT: REDUCED PRODUCT DAMAGE	
FEATURE	ADVANTAGE
Electro-hydraulic control valve	Valve is custom designed to provide full proportional control of lift and lower functions. Allows controlled lifting and lowering speed for stable load handling. Helps prevent dropping of load in the event of loss of hydraulic pressure.
Pallet clamp	Automatically centers and grips pallet "lock-tight" for secure load handling.
Electric braking	When the operator releases the foot switch, the drive motor automatically goes into regenerative mode and quickly stops the truck. Approximately two seconds after the foot switch is released, the brake is applied. All of which contributes to smooth, controlled stops for stable load handling.
Plugging	Plugging is reduced at elevated heights for smoother braking performance.
Vista Mast	Widely spaced mast channels and a glare free wire mesh screen enable operator to see picking aisleway clearly, including any pallet overhang.
Cantilever overhead guard	"See-through" grid-style overhead guard lets operator clearly see the rack and any obstructions above as he/she works in the picking aisle.

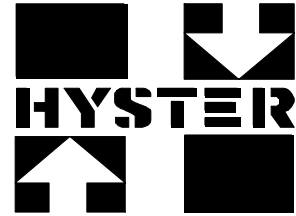


R30XM₂ KEY PRODUCT ATTRIBUTES

BENEFIT: RELIABILITY/DEPENDABILITY	
FEATURE	ADVANTAGE
Frame design	Heavy gauge plate and bar steel frame construction provides maximum rigidity and strength.
Frame/bumper protection	Lower frame skirting acts as a bumper, warding off damaging blows to drive unit housing and tire.
Rigid metal service compartment doors	Two hinged, solid steel doors serve as a protective barrier from damaging impacts.
Hall effect rotary transducer	The accelerator handle relies upon a durable Hall effect rotary transducer to regulate speed. The accelerator switch is a non-contact, magnetic sensor which has no wearable parts. It is more reliable than conventional mechanical potentiometers that are vibration sensitive and require periodic adjustments.
Electric steering	Steer on demand, all electric system is energy efficient since it does not require the power steering motor to run continuously.
Electronic horn	Fully electronic horn offers more reliability than a mechanical horn.
Traction motor	The Auto Deceleration System (ADS) transfers energy through the motor to the battery which acts like a large heat sink and minimizes motor heating. As a result of SEM technology, the motors require less current through the brushes. This technology promotes longer motor and brush life.

BENEFIT: RELIABILITY/DEPENDABILITY	
FEATURE	ADVANTAGE
Relief valve	Integral to the electro-hydraulic control valve, it helps protect the hydraulic system from excessive overload.
Load wheel hanger	A steel nose guard on front of box protects load wheels from contact with racks and pallets, increasing life of load wheels.
SEM motor controller	Sealed controller is protected from debris and contamination. Regulates current in motor circuit and automatically decreases the motor voltage to reduce the current and protect the motor.
CANbus electrical system	Utilizes a CANbus, serial communications network link to connect several electronic subsystems together, forming one integrated, reliable system.
Optical height encoder	Utilized to measure height and sense direction of fork motion (up or down). The encoder has a sealed shaft and ball bearings to protect the component from moisture, dust and other contaminants. The encoder also features a metal shield to protect against falling objects or other accidental mishaps.
Welded load wheel box	Welded load wheel box offers maximum strength to avoid bending load wheel hangers.
Return-to-Center steering	Avoids scrubbing the drive tire in rail guided applications.
Master drive unit (MDU)	Stationary traction motor eliminates problems related to flexing power leads or brake lines. Gears are constantly cooled in oil bath for quiet operation and durability.
Hot rolled formed fork body material	Robotically welded, formed steel fork section provides superior rigidity.
Drive unit mounting	Mounted to frame with large diameter ball bearings. A combination shield/seal protects bearing against contamination from water or dirt.
ABS service compartment hood	ABS hood doesn't crack like fiberglass hoods. The cover can be easily removed by loosening 4 quarter-turn fasteners.

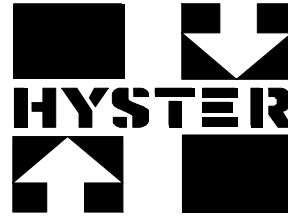
BENEFIT: RELIABILITY/DEPENDABILITY	
FEATURE	ADVANTAGE
UL Type E approval	Tested and proven to meet UL requirements for Type E certification against fire and electric shock hazards. E classified truck is intended to operate in "general", non-hazardous applications.
Strong truck warranty	Provides warranty coverage for 12 months or 2,000 hours from date of truck installation. See Hyster warranty policy for full details and listed exclusions.
Optional UL EE type approval	Option provides extra protection beyond UL type E rated truck. UL type EE rating means truck is equipped with fuses, enclosed motors and all parts such as contactors, switches; a reinforced, insulated battery cover with means for locking; and enclosed power resistors with a thermostat. EE classified truck is intended to operate in locations where volatile, flammable liquids or gases and ignitable fibers are present.
Direct drive steer system	The direct drive steer system replaces the steer chain and sprocket design. The direct drive (which is gear driven) has no chain and sprocket and requires no adjustments.



R30XM₂ KEY PRODUCT ATTRIBUTES

BENEFIT: ENHANCED SERVICEABILITY	
FEATURE	ADVANTAGE
ABS service compartment hood	Single piece composite hood is easily removed by loosening six Phillips head screws.
Motor compartment	By opening hinged steel doors, a well-arranged compartment permits easy access to hydraulic pump and motor, master drive unit and electrical components, for inspection and service needs. Electrical components are separated from the hydraulic pump and motor to minimize the possibility of oil leaks onto circuitry.
Traction control	Simple to service. A blinking light indicates fault codes at a glance.
Hydraulic tank reservoir	An external sight glass permits visual inspection of hydraulic fluid level without the need to open compartment doors or remove the filler cap.
Steering gearbox	Sealed gearbox requires no maintenance.
Battery compartment rollers	Large 2.5-inch diameter rollers allow easy battery access for maintenance checks. Rollers can be individually removed and replaced. Bearings are Teflon-sealed for longer life. Hex roller shafts prevent shafts from turning and wearing when rolling battery.

BENEFIT: ENHANCED SERVICEABILITY	
FEATURE	ADVANTAGE
CANbus	Single point diagnostics and set-up. Truck is designed to be completely self-contained. All set-up and diagnostics are performed using the truck display and system inputs. No handset, laptop or password needed. Service tech can use on-board diagnostics to investigate the fault, including testing of switch inputs, voltage measurements, and other measurements usually requiring a handset, such as armature current.
Drive unit	Has fill and drain plug for convenient changes and fast servicing.
Drive tire replacement	Rear cut-out in frame allows drive tire to be removed easily without completely raising the orderpicker. Change-out drive wheel easily by loosening 5 bolts.
Manual lowering valve	Valve is located in the drive motor compartment for easy access. Valve is manually operated to lower the operator's platform.
Trunnion mounted Vista Mast	Mast is trunnion mounted to integral chassis and base arm weldment. This mounting makes it easier to remove masts for shipping or service work.
Brake design	Brake is spring applied and electrically released. In the event truck needs towing, simply insert and install two capscrews on top of brake assembly to release the brake.

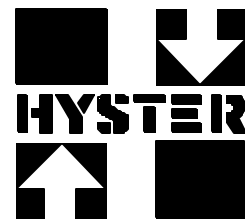


R30XM₂ KEY PRODUCT ATTRIBUTES

BENEFIT: REDUCED MAINTENANCE COSTS

FEATURE	ADVANTAGE
Load wheels	Load wheel bearings are pre-lubricated, double sealed ball bearings. They do not require additional lubrication for the life of the bearing. Single bolt installation simplifies each load wheel replacement. No shimming required.
Articulated, tandem load wheels	Articulation lengthens load wheel life.
CANbus communication system	Allows all controllers to communicate, simplifying wiring and allowing central troubleshooting. Utilizes non-contact sensors such as Hall effect or optical, eliminating potentiometers and resulting adjustments.
CANbus communication system	Permits a reduction in the number of conductors in the over-the-mast cable. Only 8 conductors are required regardless of the option mix compared to 27 on previous Hyster model.
On-board diagnostics	Through the dash display, service tech is able to access on-board diagnostics and fault log. The log records faults from all system controllers, including a specific uniform fault code, number of occurrences (in the event of repeats), hour meter reading of last occurrence, and the controller reporting the fault. All of which enables faster troubleshooting for increased uptime.

BENEFIT: REDUCED MAINTENANCE COSTS	
FEATURE	ADVANTAGE
Traction SEM controller	Curtis #1243 traction controller contains a MOSFET full bridge rectifier circuit which can control and change the direction of the current to the drive motor in response to forward or reverse travel requests from the operator . This eliminates need for forward and reverse contactors.
Traction SEM controller	Features an Auto Deceleration System (ADS), which increases brush life and battery life. The Auto Deceleration System also helps reduce brake wear.
Hydraulic system	Single hoist motor system decreases maintenance cost, improves battery usage, and minimizes heat.
Electrical wiring	The truck electrical control harness wires are numbered for quick, easy wire identification. All wire harness connections are sealed to protect against vibration, moisture, dust and other contaminants that degrade performance and contribute to increased service and maintenance costs.
APS steering motor	Three-phase brushless steer motor requires no maintenance.
Mast load rollers	Tapered load roller bearings in mast. Rollers contain a grease-sealed bearing, eliminating lubrication of roller itself.
Hydraulic & drive motor brushes	The R30XM ₂ motor access is easy for checking and changing motor brushes; just open the motor compartment doors and remove the plastic top cover. The motors have no vented bands to be removed, simplifying brush access for quick and easy inspection or replacement.
Mast thrust wear plugs	A standard feature of the Hster Vista mast are the adjustable brass side thrust wear plugs. Side loading is a frequent occurrence in order picking applications. The wear plugs allow quick and easy adjustment of the mast channels to maintain proper alignment, which keeps channel wear and load bearing wear to a minimum.



Summary of R30XM₂ FAB Statements

PRODUCT REPORT CARD	
	Hyster
INCREASED PRODUCTIVITY	✓
▪ State-of-the-art separately excited motor (SEM) technology ▪ HySense™ continuous height sensing system optimizes maximum travel speed at various fork heights. ▪ Accelerator handle provides simultaneous control of lift/lower, travel direction, speed, and horn functions ▪ Variable lift/lower speed control ▪ Available in standard 24-volt or optional 36-volt electrical system for job matched performance.	
INCREASED OPERATOR COMFORT	✓
▪ Spacious operator platform ▪ Anti-fatigue platform floor mat ▪ Gas-spring assisted swing-up side rails for side protection ▪ Ergonomically located controls for operating ease ▪ Widely-spaced 3 stage mast channels and wire mesh safety screen improve view ahead ▪ Cushioned platform stops	
REDUCED PRODUCT DAMAGE	✓
▪ Variable lift/lowering for stable load handling ▪ Lock-tight pallet clamp secures load ▪ Auto Deceleration System (ADS) for smooth controlled stops	
RELIABILITY/DEPENDABILITY	✓
▪ Reliable CANbus: serial communications network link ▪ Non-contact sensors: hall effect and optical encoders ▪ Steel nose guard protects load wheels ▪ Stationary traction motor with direct drive steer system ▪ UL Type E approval ▪ Competitive truck warranty: 12 months or 2,000 hours from date of installation	
ENHANCED SERVICEABILITY	✓
▪ Clutter-free service compartment layout ▪ Simplified wiring with sealed in-line connectors ▪ Single point diagnostic capability – no laptop, handset or password needed ▪ Minimal service intervention ▪ Trunnion-mounted 3 stage Vista Mast	
REDUCED MAINTENANCE COSTS	✓
▪ Single eight conductor over-the mast cabling ▪ Easy access to motor brushes ▪ On-board diagnostics	

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